

WHAT IS CLAIMED IS:

- 1 1. A vending machine, comprising:
2 a housing for storing products to be dispensed;
3 a product dispensing assembly comprising a dispenser for holding and dispensing a
4 product,
5 an actual product depth for the dispenser;
6 a product dispensing mechanism depth setting for the product dispensing assembly;
7 a product vend detector adaptable to sense when the product is dispensed; and
8 a controller electrically coupled to the product dispensing assembly, wherein the
9 controller is adaptable to receiving input signals from the product vend detector and programmable
10 to adjust the product dispensing mechanism depth setting to match the actual product depth.
- 1 2. The vending machine according to claim 1, wherein the controller compares the input
2 signals sent by the product vend detector to the product dispensing mechanism depth setting for the
3 product dispensing assembly to determine whether the controller will enter a learning mode to adjust
4 the depth setting.
- 1 3. The vending machine according to claim 2, wherein the learning mode is entered
2 when the input signals sent by the product vend detector do not match the depth setting for the
3 product dispensing assembly.
- 1 4. The vending machine according to claim 3, wherein when in the learning mode, the
2 controller counts the number of products vended during a complete vend cycle of the product
3 dispensing mechanism.

1 5. The vending machine according to claim 4, wherein the controller adjusts the depth
2 setting of the product dispensing mechanism to match the number or products vended during the
3 complete vend cycle.

1 6. The vending machine according to claim 5, further comprising
2 a product chute for receiving the product when dispensed by the dispenser; and
3 wherein the product vend detector is positioned substantially at the product chute.

1 7. The vending machine according to claim 6, wherein the product vend detector is an
2 impact sensor.

1 8. The vending machine according to claim 6, wherein the product vend detector is an
2 optical sensor.

1 9. The vending machine according to claim 5, wherein the product vend detector is
2 positioned substantially below the product dispenser.

1 10. The vending machine according to claim 9, wherein the product vend detector is an
2 impact sensor.

1 11. The vending machine according to claim 9, wherein the product vend detector is an
2 optical sensor.

1 12. A method for dispensing products from a vending machine, comprising the steps of:
2 storing products in a product dispensing assembly having an actual product depth;
3 setting a first product depth setting for a product dispensing assembly;
4 sensing input signals when products are dispensed;
5 transmitting the input signals from a product vend detector to a controller;
6 comparing the input signals to the first product depth setting; and
7 adjusting the first product depth setting for a product dispensing assembly to a second
8 product depth setting that matches the actual product depth.

1 13. The method according to claim 12, wherein the controller compares the input signals
2 transmitted by the product vend detector to the first product depth setting for the product dispensing
3 assembly to determine whether the controller will enter a learning mode to adjust the depth setting.

1 14. The method according to claim 13, wherein the learning mode is entered when the
2 input signals sent by the product vend detector do not match the depth setting for the product
3 dispensing assembly.

1 15. The vending machine according to claim 14, wherein when in the learning mode, the
2 controller counts the number of products vended during a complete vend cycle of the product
3 dispensing mechanism.

1 16. The vending machine according to claim 15, wherein the controller adjusts the depth
2 setting of the product dispensing mechanism to match the number or products vended during the
3 complete vend cycle.